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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,585	06/25/2003	Tapio Mantysalo	915-001.014	5860

4955 7590 10/18/2005

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EXAMINER

PERVAN, MICHAEL

ART UNIT

PAPER NUMBER

2677

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,585

Applicant(s)

MANTYSALO ET AL.

Examiner

Michael Pervan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/25/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 11, 12, 17-20, 27, 28, 33-35, 42 and 47 rejected under 35 U.S.C. 102(b) as being anticipated by Bisset et al., hereafter referred to as Bisset (US 5,543,588).

In regards to claims 1, 17 and 33, Bisset discloses arranging the touch pad UI (312) into the backside (310) of the mobile terminal (see Figures 12-16 and col. 22, lines 54-63), operating the touch pad UI by touching it at least by one finger (see Figures 12-16 and col. 10, lines 44-51; col. 22, lines 63-68) and observing the position of at least one finger on the touch pad UI, and determining the corresponding position of at least one cursor (324) on the display (306) in order to displaying said cursor according to the position of at least one finger on the touch pad UI (see Figure 17 and col. 24, lines 12-14).

In regards to claims 2, 18 and 34, Bisset discloses a multifunctional pressure sensitive touch pad user interface input device (X,Y coordinate position and mouse click and drag functions, col. 8, lines 59-61; col. 22, lines 46-51).

In regards to claims 3 and 19, Bisset discloses displaying a cursor on the display essentially on the imaged line extending from the finger on the touch pad

perpendicularly through the touch pad UI and display (see Figure 17 and col. 24, lines 12-14).

In regards to claims 4, 20 and 35, Bisset discloses a touch pad fixedly arranged into the backside of the mobile terminal (see Figures 14-16 and col. 22, lines 60-63).

In regards to claims 11 and 27, Bisset discloses displaying at least one object (324) on the display of the mobile terminal, where the object is at least one of the following: menu, icon, number, letter, character, button and at least part of virtual keyboard (see Figure 17 and col. 24, lines 12-14).

In regards to claims 12, 28 and 42, Bisset discloses observing a press of at least one finger on the touch pad UI and determining the press as a click-operation (col. 22, lines 46-51).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 21 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Robinson (US 6,020,878).

In regards to claims 5, 21 and 36, Bisset does not disclose a touch pad UI hinged to the mobile terminal.

Robinson discloses a touch pad UI 22 hinged 31 to the mobile terminal 10 at least at one of the following part of the mobile terminal: lowest part, upper part, right part

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and left part (see Figure 1). It would have been obvious at the time of invention to modify Bisset with the teachings of Robinson because it allows for a more compact device and a user to input information on the terminal at the same time the user is looking at the display by mounting the touch pad and the display on the same side with a hinge.

5. Claims 6-8, 10, 22-24, 26, 37-39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Robinson, and in further view of Tang (US 5,987,704).

In regards to claims 6, 22 and 37, Bisset and Robinson disclose observing said position angle and if touch pad UI is closed, when position angle is essentially 0 degrees, the touch pad UI is arranged to act as a mechanical protector for the display and the touch sensitive surface of the touch pad UI, and if the touch pad UI is opened so that the position angle is more than approximately 0 degrees, the touch pad UI is arranged to act as a data input device. Bisset and Robinson do not disclose arranging the hinged touch pad UI in the position of angle 0 and 360 degrees relative to the mobile terminal.

Tang discloses arranging the hinged touch pad UI in the position of angle 0 and 360 degrees relative to the mobile terminal (see Figures 5a-5d and col. 5, lines 61-64). It would have been obvious at the time of invention to modify Bisset and Robinson with the teachings of Tang because it allows for a more compact device, which makes it easier to carry.

In regards to claims 7, 23 and 38, Bisset and Robinson do not disclose when the touch pad UI is completely open so that the position angle is essentially 360 degrees, the touch pad UI is arranged to operate in two-hand mode, where data is inputted by at least one finger through the touch pad UI device so that when moving the finger on the touch pad a cursor corresponding the moving finger will move on the display of the mobile terminal according to the movements of the finger.

Tang discloses when the touch pad UI is completely open so that the position angle is essentially 360 degrees, the touch pad UI is arranged to operate in two-hand mode, where data is inputted by at least one finger through the touch pad UI device so that when moving the finger on the touch pad a cursor corresponding the moving finger will move on the display of the mobile terminal according to the movements of the finger (see Figure 5d and col. 9, lines 9-12). It would have been obvious at the time of invention to modify Bisset and Robinson with the teachings of Tang because it makes it easier to hold and allows for a larger display for easier viewing.

In regards to claims 8, 24 and 39, Robinson discloses observing whether the position angle of the touch pad UI, which hinged either to bottom or upper part of the mobile terminal, is more than predetermined limit and if, converting the read direction data of the fingers movements on the touch pad in the vertical direction to contrary (see Figure 5 and col. 3, lines 11-27).

In regards to claims 10, 26 and 41, Robinson discloses a predetermined limit for the position angle as approximately 180 degrees (see Figures 1 and 2; the difference in

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angle from when the touch pad is open, Figure 1, and closed, Figure 2, is approximately 180 degrees).

6. Claims 9, 25, 40 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Robinson, Tang and further in view of Nieminen.

In regards to claims 9, 25 and 40, Bisset as modified does not disclose observing whether the position angle of the touch pad UI, which hinged either to right or left part of the mobile terminal, is more than predetermined limit and if, converting the read direction data of the fingers movements on the touch pad in the horizontal direction to contrary.

Nieminen discloses touch pad, which is hinged either to right or left part of the mobile terminal (see Figures 1 and 2). It would have been obvious at the time of invention to modify Bisset as modified with the teachings of Nieminen because such a modification would have involved a mere change in the location of a component. A change in location is generally recognized as being within the level of ordinary skill in the art.

In regards to claims 48-50, Nieminen or Robinson discloses a predetermined limit for the position angle as approximately 180 degrees (see Nieminen's Figures 1 and 2; the difference in angle from when the device is open, Figure 1, and closed, Figure 2, is approximately 180 degrees, and Robinson's Figures 1-2).

7. Claims 13, 29 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Rose et al hereafter referred to as Rose (US 2002/0097229).

In regards to claim 13, 29 and 43, Bisset does not disclose dividing the touch pad UI virtually at least one first portion and at least one second portion.

Rose discloses dividing the touch pad UI virtually at least one first portion and at least one second portion (see Figure 9 and paragraph 58). It would have been obvious at the time of invention to modify Bisset with the teachings of Rose so a user could be more easy to recognize the portions performing different functions on the touch pad.

8. Claims 14, 30 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Rose and in further view of Silfverberg et al, hereafter referred to as Silfverberg, (US 2003/0043114).

In regards to claims 14, 30 and 44, Bisset as modified does not disclose a first finger on the first portion of the touch pad UI moves a cursor in the display and a second finger on the second portion of the touch pad UI scrolls a content displayed on the display to the up, down, left and right directions.

Silfverberg discloses a second finger on the second portion of the touch pad UI scrolls a content displayed on the display to the up, down, left and right directions (see Figure 2 and col. 4, lines 55-64). It would have been obvious at the time of invention to modify Bisset as modified with the teachings of Silfverberg because it allows for easier control of the device.

9. Claims 15-16, 31-32 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset in view of Rose and in further view of Silfverberg and Slavin et al, hereafter referred to as Slavin (US 4,755,811).

In regards to claims 15, 31 and 45, Silfverberg teaches a display being zoomed in/out when a first finger is pressed on a first portion (201) (see Figure 2 and paragraph 21-22). Bisset as modified does not disclose a content displayed on the display is zoomed in/out when the first portion of the touch pad UI is pressed by a first finger and a second finger is moved on the second portion of the touch pad UI at the same time.

Slavin discloses a display being zoomed in/out when the first finger (40) pressed on a first portion (42) and the second finger on a second portion (36) of the panel (38) at the same time (see Figures 1-4b and col. 2, lines 5-10 and 42-52). It would have been obvious at the time of invention to modify Bisset as modified with the teachings of Slavin because Slavin teaches zooming in/out as being performed by one-handed/two-handed operations (see col. 2, lines 23-52).

In regards to claims 16, 32 and 46, Slavin discloses a content displayed on the display is zoomed in/out when a button is pressed in the mobile terminal (col. 2 lines 24-28).

Silfverberg discloses a content displayed on the display is zoomed in/out when a button is pressed in the mobile terminal and a finger is moved on the touch pad UI (col. 3 lines 35-54).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art (Kang et al US 5,949,408) is deemed relevant since it applies the use of a 360-degree rotatable hinge.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVP
Sept. 30, 2005

Lun-Yi Lao
Primary Examiner

